



# M365 MONITORING ESSENTIALS

Why device, WIFI, and ISP insights are crucial  
to supporting remote Microsoft 365 users

April 9<sup>th</sup>, 2024



Upgrade Your Time

# Host & Speaker



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## All attendee lines are muted

This is to prevent interruptions during the presentation.



## Please submit questions via the Chat or Q&A panel

Your questions will be addressed directly during the webinar or in the Q&A section after the presentation.



## The webinar is being recorded

After the webinar, we will send you a mail to give access to the recording and presentation slides.

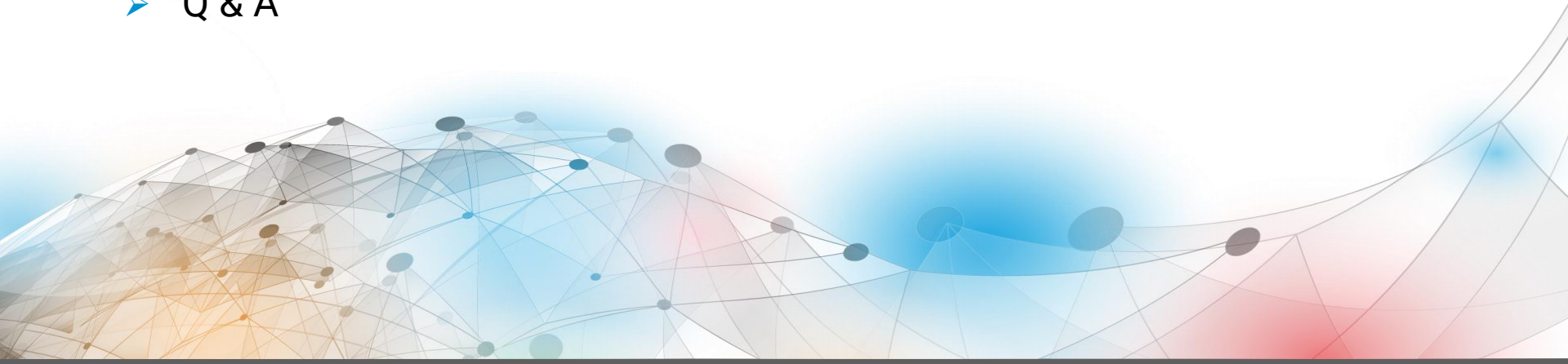


## Share your feedback with us

Use the link provided at the end to let us know what we can do better.

# Agenda

- About panagenda
- Short Recap Episode 1
- Some Support Wisdoms
- What kind of device, WIFI, and ISP insights are important for M365 support?
- Customer Examples using OfficeExpert TrueDEM
- Q & A





# About panagenda



- Founded 2007, privately owned and funded
- HQ in Vienna (Austria)
- Offices in Germany, USA and The Netherlands
- panagendians work from >20 different locations



# OPTIMIZE

MICROSOFT 365  
MICROSOFT TEAMS  
AND MORE



# ANALYZE

APPLICATIONS  
SERVERS  
MAIL

# REDUCE

INFRASTRUCTURE  
WORKLOAD  
COST

Time  
Your  
Upgrade

# MANAGE

NOTES  
NOTES WEB  
NOTES MOBILE

The logo for the M365 monitoring essentials webinar, consisting of a 2x2 grid of white squares to the left of the text "M365 monitoring essentials" in a sans-serif font, with "WEBINAR" in a smaller, uppercase sans-serif font below it.

# Why you need monitoring to keep your Microsoft 365 journey successful

March 12th, 2024 | 11:00 am EST | 16:00 CET



**Christoph Adler**

Head of Solution Consulting  
*panagenda*



[View 1st Webinar](#)



# Digital Experience Monitoring

shifts the focus to the complete 'User Journey'

# **More than 85% of the issues with Microsoft 365 Services**

are being caused on/by the user's device, the local network and/or the ISP side



**Support Wisdoms**

# Support Wisdoms

## Steps:

- **Identify the Problem** → Understand the issue reported by the customer.
- **Gather Information** → Ask relevant questions without overwhelming the customer.
- **Isolate the Root Cause** → Narrow down possibilities.
- **Test Hypotheses** → Verify assumptions.
- **Implement Solutions** → Fix the issue.

**DON'T EXPECT  
THE USER  
TO KNOW**

(anything)

**AVOID  
BURDENING  
THE USER**

(more than necessary)

**And please do not forget**  
**The customer\* is always right\*\***

\* Even or especially if the customer is your colleague

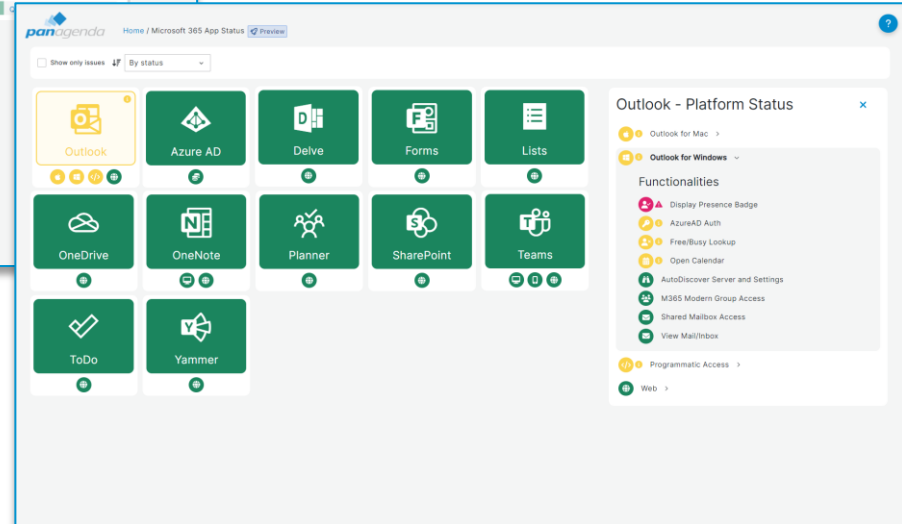
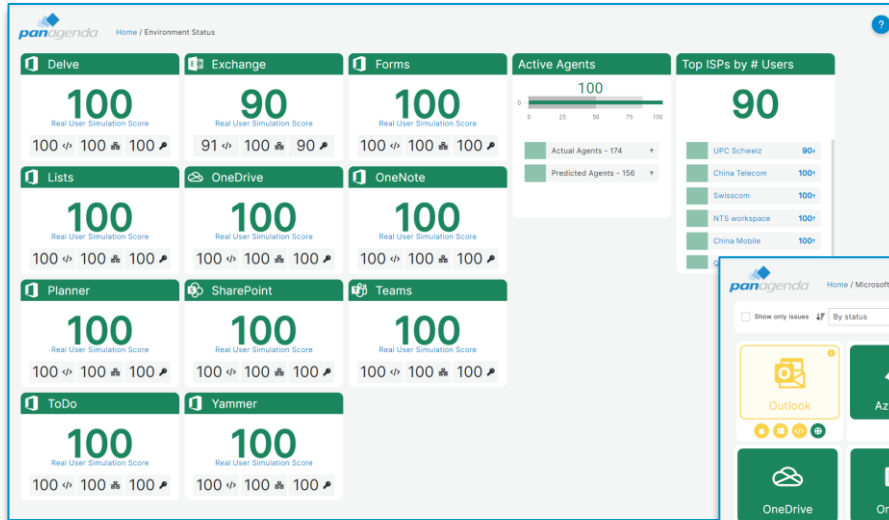
\*\* And also if they are actually not right



**What kind of device, WIFI, and ISP  
insights are important for  
Microsoft 365 support?**

**Affected computer (hostname)**

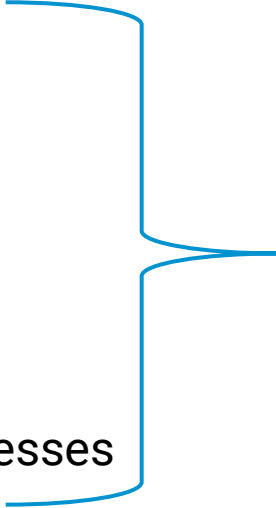
# Exclude 'larger' cloud issues





# Device insights


- Affected computer (hostname)
- Hardware (CPU, Memory, GPU's, Harddisk, Manufacturer)
- Attached devices e. g. Camera, Headset, ...
- OS (Name, Architecture, Version/Build)
- Installed Drivers
- Installed Software (When, version, etc.)
- Battery status (if not UPS)
- CPU, Memory and Disk usage → Total in %
- CPU and Memory usage → in % by top processes

A large blue bracket on the right side of the slide, grouping the last seven items of the list above it.

**Collecting data over  
the time to  
understand trends**

# Local network (Wifi) insights – company & remote/home

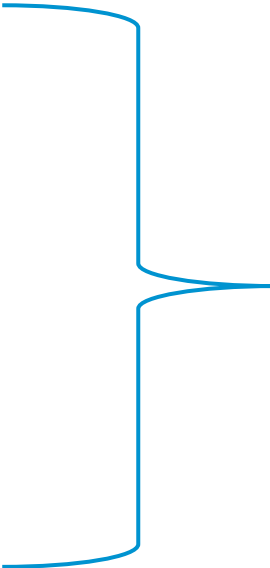
- Available Network Adapters
  - Which one is in use
  - Driver version
  - Yes, that includes VPN
- Wired Vs. Wireless
  - If Wireless → SSID, Signal strength, Volatility
  - Inbound/Outbound bandwidth
  - RTT – Round Trip Times (Latency)
  - Packet Problems
  - Traffic (Received / Sent)

A large blue bracket graphic that spans across the two main bullet points on the left and points towards the text on the right.

**Collecting data over  
the time to  
understand trends**

# Company network insights

- Specific devices/services on the route such as
  - Proxies
  - Firewalls
  - Gateways
  - 3rd-party SaaS for Security
  - QoS
  - MPLS
  - SDWAN
  - Load Balancers



**Collecting data over  
the time to  
understand trends**

# ISP (Internet Service Provider) insights

- Route to Microsoft 365 Front Door
  - DNS
  - Gateways
  - Load Balancers
  - Hops / hop count
  - Latency (RTT)

A large blue bracket on the right side of the slide, grouping the list of metrics and pointing towards the text on the right.

**Collecting data over  
the time to  
understand trends**

## What does this data give to YOU ?

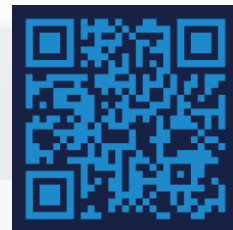


- Identify problem-prone device types, network(segment)s, ISPs
- Single pane of glass (SPOG) to identify/detect patterns
- Compare devices, local/company networks and ISP's

**Helps solve issues in lightspeed!**



**Customer Examples**  
using **OfficeExpert TrueDEM**





## Client App

Accurately monitor all your devices



## Network/ISP/MSFT

The entire path



## Quality of M365 services

True User Experience



## Call Quality

Ensure your SLAs are consistently met



# OfficeExpert



TrueDEM M365



TrueDEM Advanced



# Example: Device Health → Memory & CPU consumption

Average CPU and RAM by Device Model

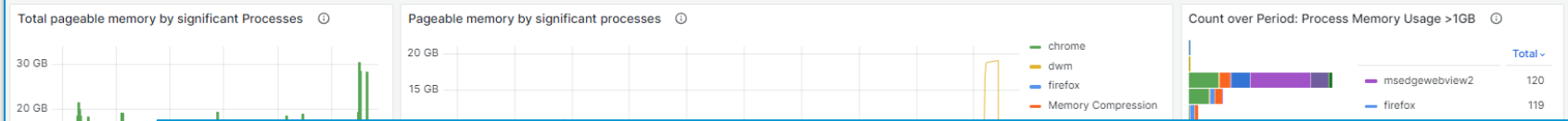
Manufacturer	DeviceType	TotalPhysicalMemory	RAM Pct used	CPU Avg	Devices ↓
HP	HP EliteBook 845 G8 Notebook PC	15.0 GiB	53.8%	10.3%	9040
HP	HP ZBook Fury 15.6 inch G8 Mobile Wor...	31.0 GiB	40.0%	13.8%	6193
HP	HP EliteBook 855 G8 Notebook PC	15.0 GiB	53.0%	9.68%	5868
Dell Inc.	Latitude 5420	15.0 GiB	59.2%	19.9%	3693
HP	HP EliteBook 845 14 inch G9 Notebook ...	15.0 GiB	53.8%	9.88%	3175
HP	HP EliteBook 855 G7 Notebook PC	15.0 GiB	53.7%	15.6%	2682
Dell Inc.	Latitude 5520	15.0 GiB	59.5%	19.5%	2469
HP	HP EliteBook 845 G7 Notebook PC	15.0 GiB	52.9%	15.8%	2367
Dell Inc.	Latitude 5430	15.0 GiB	58.3%	14.1%	2305
HP	HP EliteBook 840 G5	15.0 GiB	52.4%	17.6%	2164

Average CPU and RAM by Device Model

Manufacturer	DeviceType	TotalPhysicalMemory	RAM Pct used	CPU Avg ↓	Devices
Dell Inc.	Latitude E5270	7.00 GiB	73.4%	100%	2
VMware, Inc.	VMware Virtual Platform	7.00 GiB	44.8%	94%	1
Hewlett-Packard	HP EliteBook 820 G2	15.0 GiB	66.6%	84.3%	3
Dell Inc.	Latitude 5285	7.00 GiB	83.5%	80.3%	2
HP	HP EliteBook 840 G4	31.0 GiB	28.2%	77.3%	1
Hewlett-Packard	HP EliteBook 820 G1	11.0 GiB	59.3%	68.3%	5
HP	HP Elite x2 1012 G2	3.00 GiB	88.8%	65.5%	1
HP	HP ProBook 650 G2	19.0 GiB	38.5%	64.7%	1
HP	HP ProDesk 600 G4 DM (TAA)	31.0 GiB	36.7%	57.4%	3
HP	HP EliteBook Folio G1	7.00 GiB	78.6%	54%	5

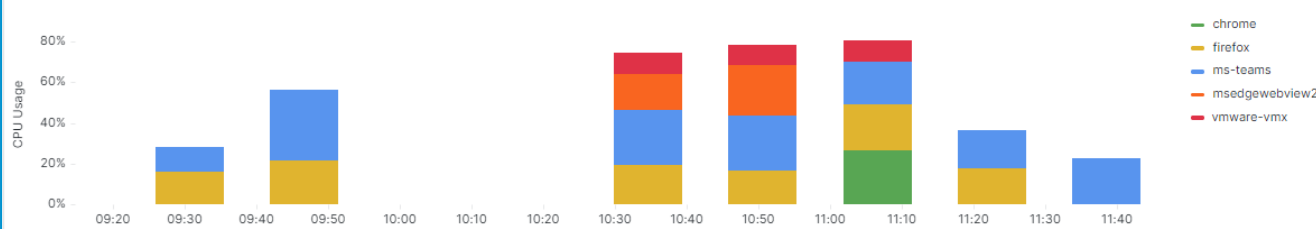


# Example: Device Health → Memory & CPU consumption (cont.) *panagenda*

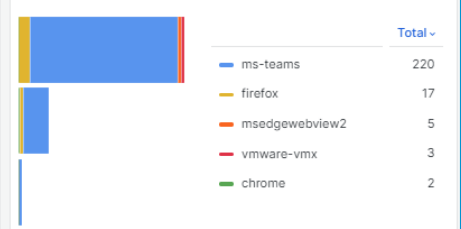


# Example: Device Health → Memory & CPU consumption (cont.) *panagenda*

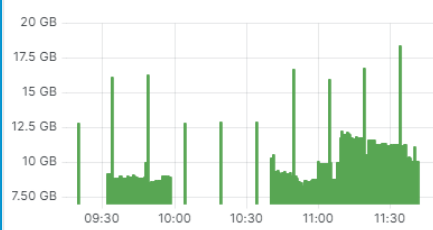
CPU usage by significant processes



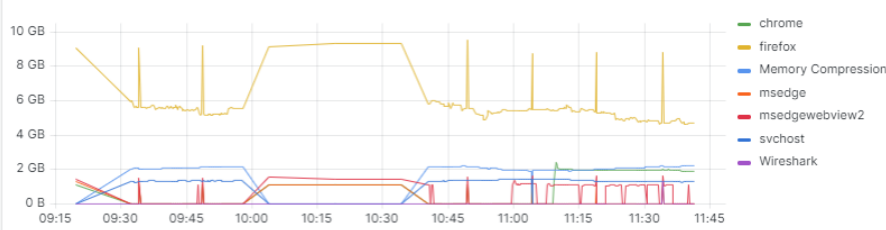
Count over Period: Process CPU Time >10%



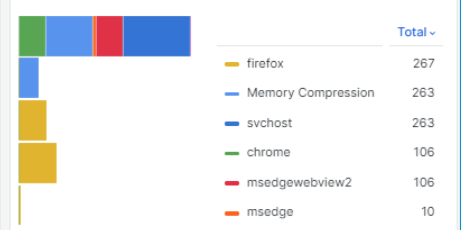
Total pageable memory by significant Processes



Pageable memory by significant processes



Count over Period: Process Memory Usage >1GB



# Example: Device Health → Software installations/updates



Home > Dashboards > System > User Details ☆ 🔊

Search or jump to... ctrl+k

Last 7 days 🔍 ↻ ⌵ ⌶

> User's Device (9 panels)

> Teams Call Expanded Detail (4 panels)

▼ Applications

Applications Added / Removed

StartTimeUtc + ▾	Name ▾	CurrentVersion ▾	PreviousVersion ▾	Publisher ▾
04/05/2024, 10:01:05 AM	Nmap 7.94	7.94		Nmap Project
04/05/2024, 10:01:05 AM	Npcap	1.75		Nmap Project
04/05/2024, 10:01:05 AM	Zoom	5.17.11 (34827)	5.16.10 (26186)	Zoom Video Communications, Inc.
04/05/2024, 10:01:05 AM	Microsoft OneDrive	24.055.0317.0002	24.050.0310.0001	Microsoft Corporation
04/05/2024, 10:01:05 AM	Snagit 2023	23.2.3	23.2.2.636	TechSmith Corporation
04/05/2024, 10:01:05 AM	Snagit 2023	23.2.3.2045	23.2.2.636	TechSmith Corporation
04/05/2024, 10:01:05 AM	Microsoft Edge	123.0.2420.81	123.0.2420.53	Microsoft Corporation
04/05/2024, 10:01:05 AM	Snagit 2023	23.2.3	23.2.1.33145	TechSmith Corporation

< 1 2 > 1 - 8 of 16 rows

Applications Installed

Name ▾	Publisher ▾	CurrentVersion ▾
Thunderbolt™ Software	Intel(R) Corporation	1.47.0.0
TrueDEM Manager	panagenda	6.1.0.0
TrueDEM Manager Stage	panagenda	6.0.0.0
VBCABLE, The Virtual Audio Cable	VB-Audio Software	
VLC media player	VideoLAN	3.0.16
VMware Workstation	VMware, Inc.	17.5.1
Webex	Cisco Systems, Inc	43.6.0.26407
WinSCP 5.13.4	Martin Prikryl	5.13.4
Windows 10 Update Assistant	Microsoft Corporation	1.4.9200.23258

< 1 ... 11 12 13 14 15 16 17 > 136 - 144 of 149 rows

> OneDrive Utilization (4 panels)



# Quick Live Demo

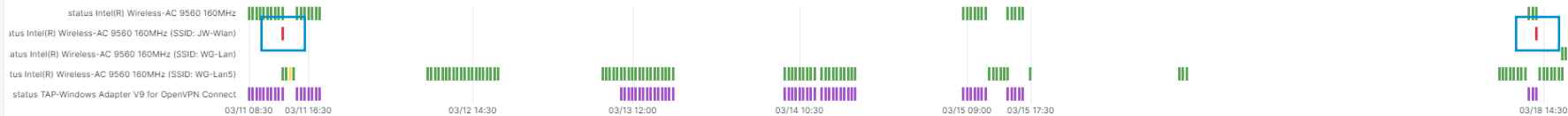
## OfficeExpert TrueDEM



Upgrade Your Time

# Example: Network Health

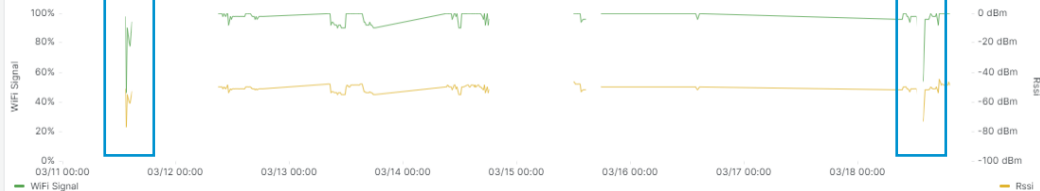
## Connected Network and VPN Adapters



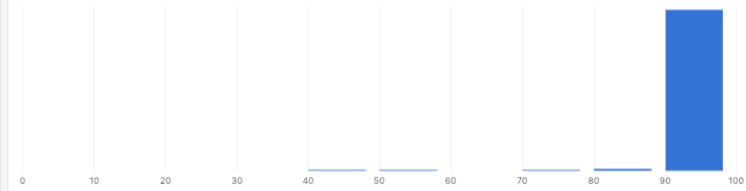
## Networking Summary - Primary Detected Adapter

Identifier	Type	Average Signal	Sig. Flux	Volatility	Avg. Inbound	Avg. Outbound	Usage
WG-Lan5	Wireless	97%	4%	15%	818 Mb/s	768 Mb/s	71%
Local Area Connection	Other	N/A	0%	0%	1 Gb/s	1 Gb/s	25%
WG-Lan	Wireless	100%	0%	0%	144 Mb/s	144 Mb/s	3%
JW-Wlan	Wireless	50%	6%	66%	73.5 Mb/s	81.7 Mb/s	1%

## Wireless Network Strength



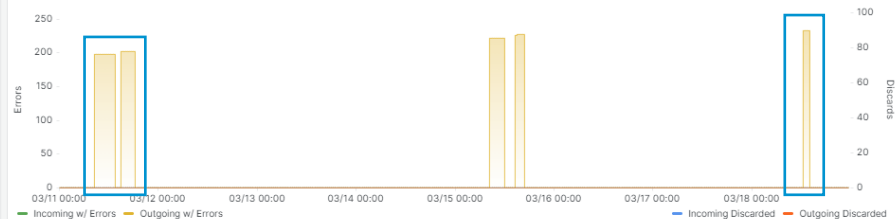
## Wireless Signal Quality Histogram (%)



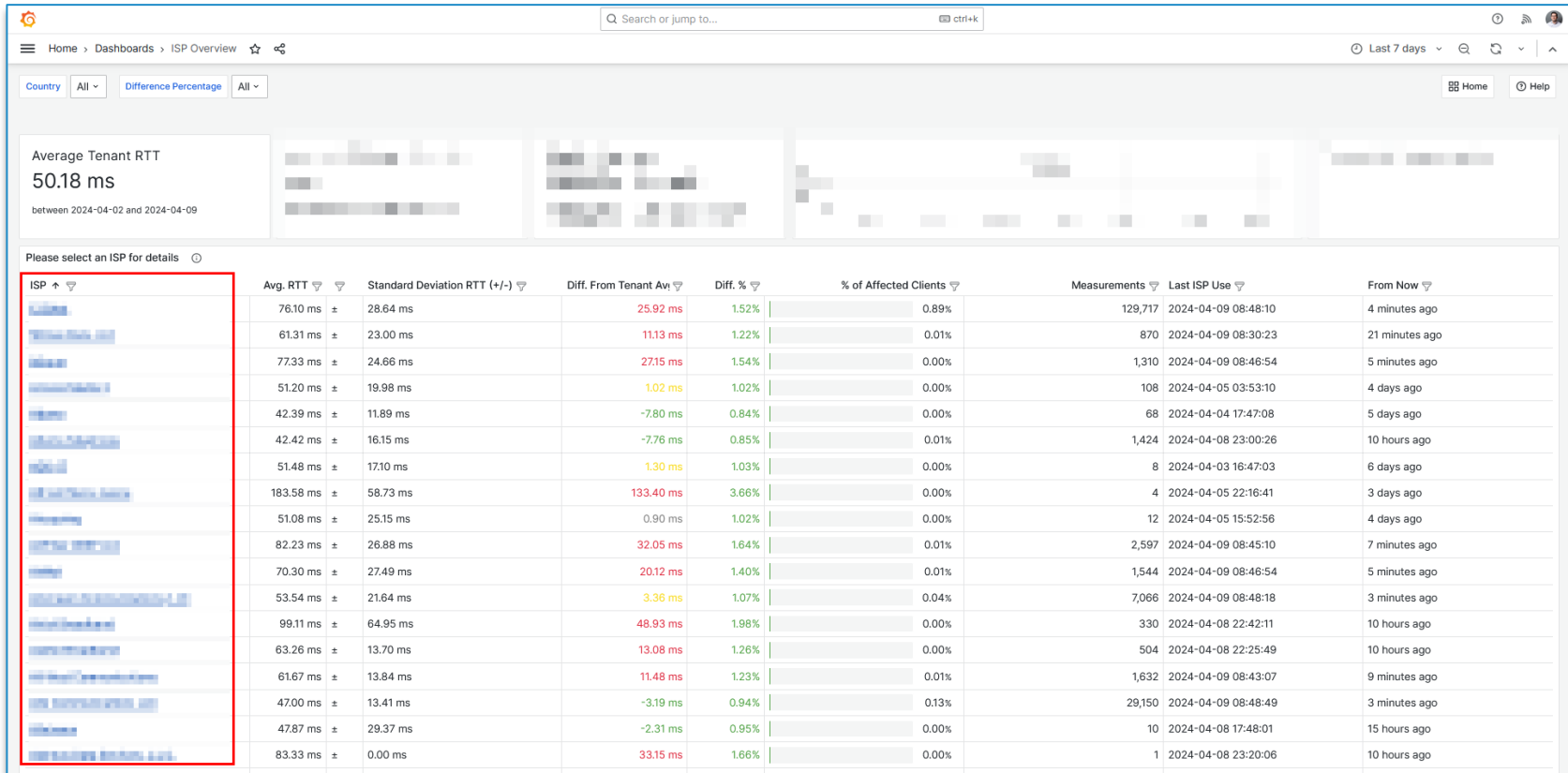
## Round Trip Times



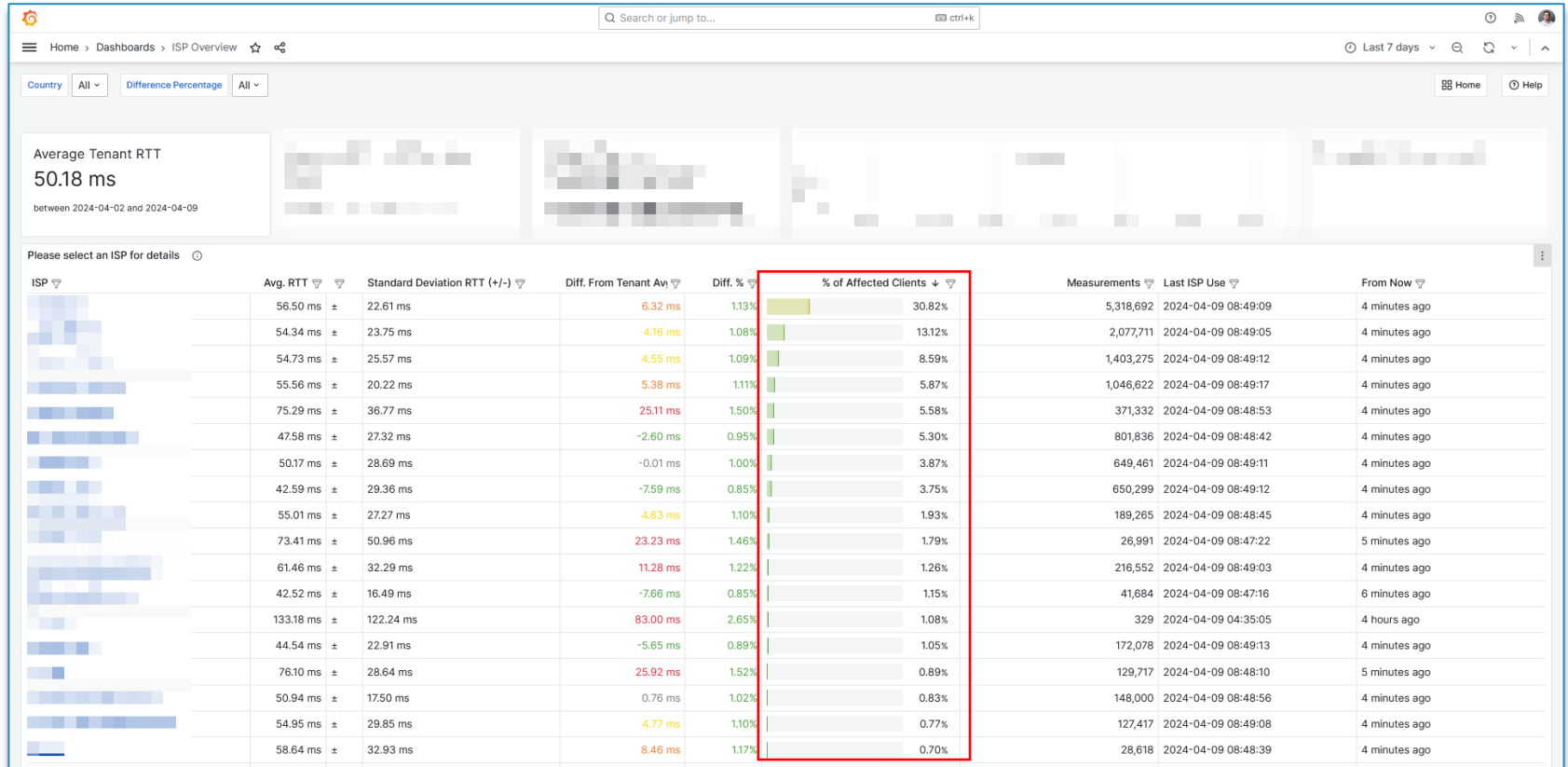
## Packet Problems



# Example: ISP Health



# Example: ISP Health (cont.)



# Example: ISP Health (cont.)

Q Search or jump to... ctrl+k

Home > Dashboards > ISP Overview ☆ 🔊

Last 7 days 🔍 ↺ ↻ ↕

Country All ▾ Difference Percentage All ▾

Home Help

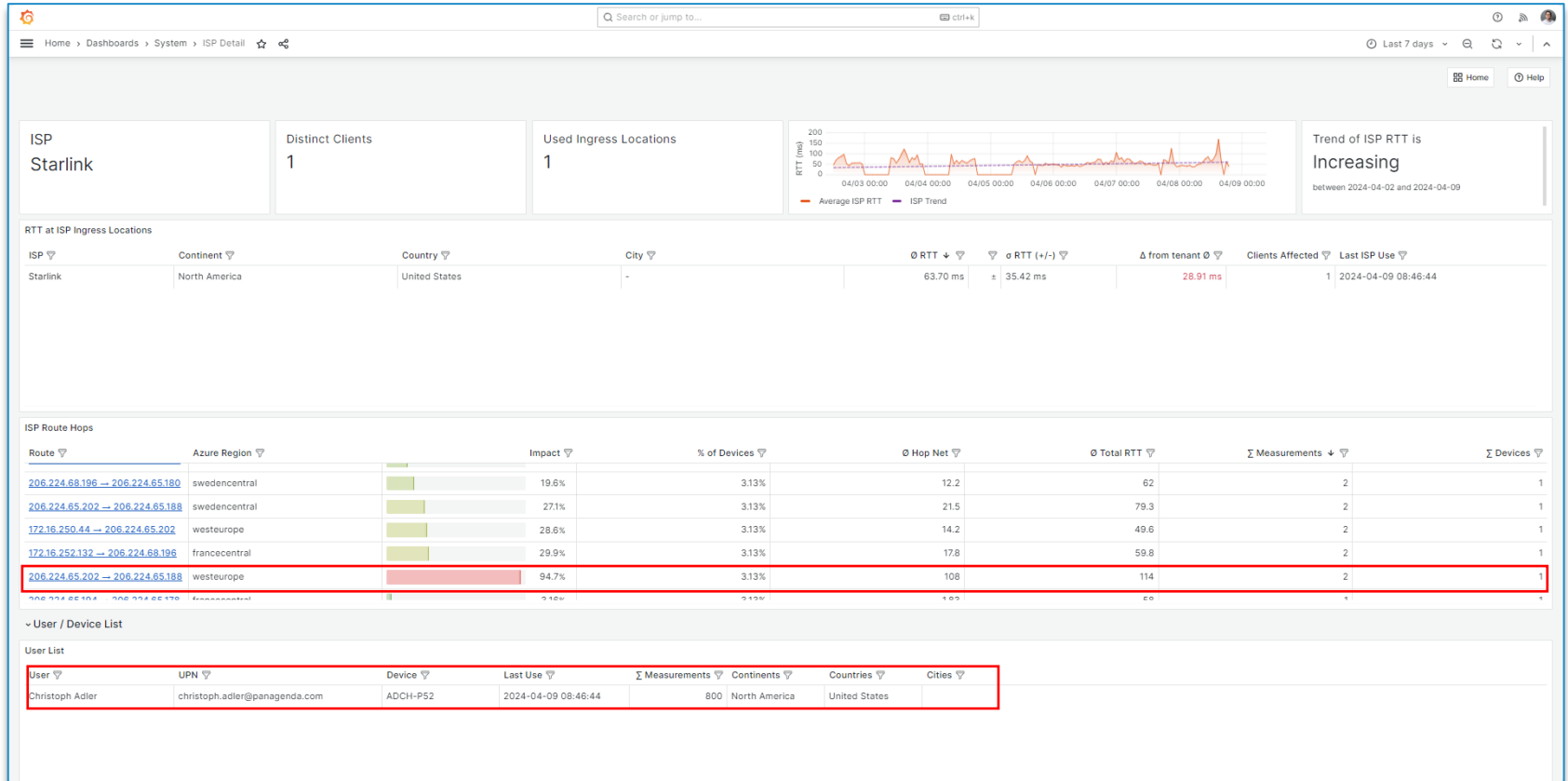
Average Tenant RTT  
50.18 ms  
between 2024-04-02 and 2024-04-09

Please select an ISP for details ○

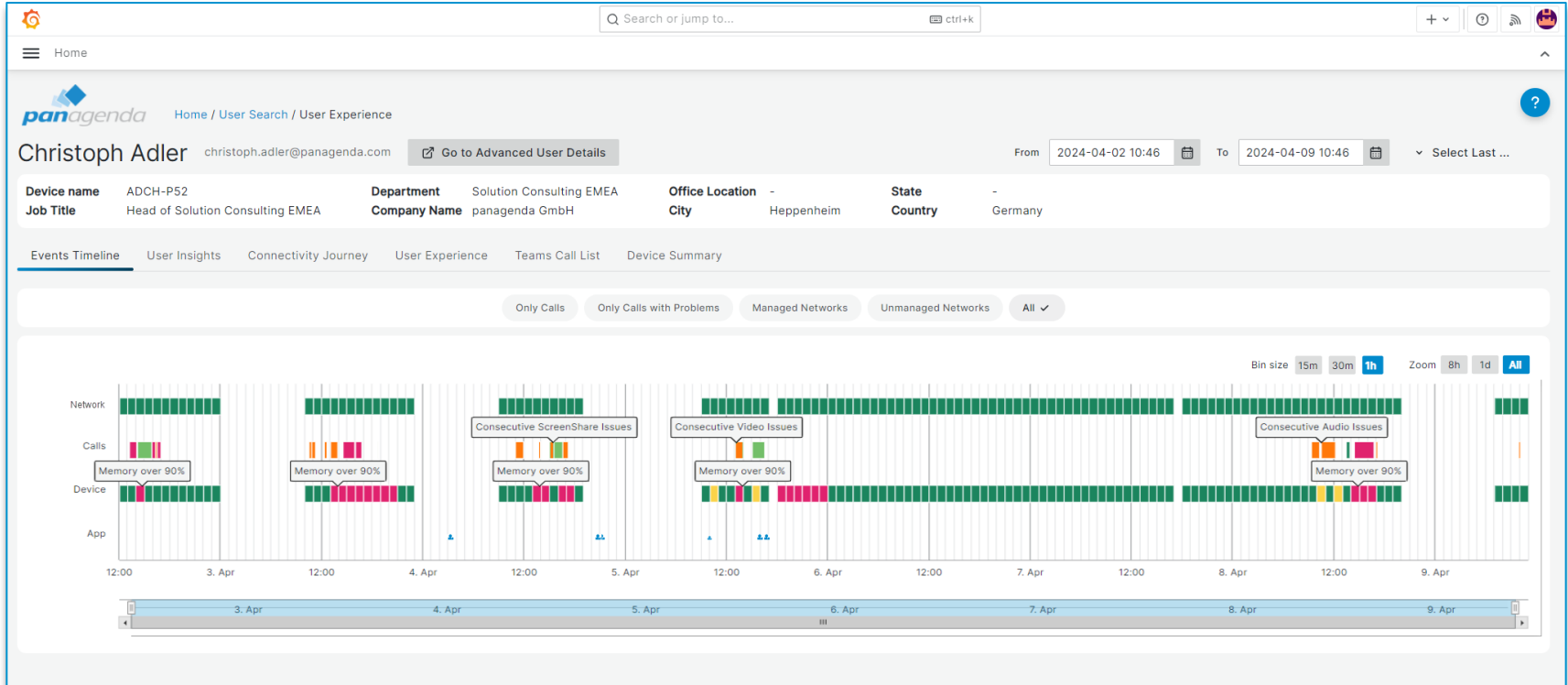
ISP ▾	Avg. RTT ▾	Standard Deviation RTT (+/-) ▾	Diff. From Tenant Avg ▾	Diff. % ▾	% of Affected Clients ▾	Measurements ▾	Last ISP Use ▾	From Now ▾
	434.00 ms	0.00 ms	383.82 ms	8.65%	0.00%	1	2024-04-08 19:29:44	13 hours ago
	388.59 ms	96.22 ms	338.41 ms	7.74%	0.01%	1,543	2024-04-09 08:48:54	5 minutes ago
	330.08 ms	166.10 ms	279.90 ms	6.58%	0.01%	13	2024-04-08 22:44:31	10 hours ago
	262.82 ms	55.52 ms	212.64 ms	5.24%	0.00%	14	2024-04-08 15:35:00	17 hours ago
	236.81 ms	15.37 ms	186.63 ms	4.72%	0.00%	65	2024-04-08 22:34:06	10 hours ago
	214.36 ms	63.69 ms	164.18 ms	4.27%	0.00%	26	2024-04-05 16:01:21	4 days ago
	202.14 ms	90.58 ms	151.96 ms	4.03%	0.00%	14	2024-04-03 18:16:53	6 days ago
	196.26 ms	135.71 ms	146.08 ms	3.91%	0.00%	7	2024-04-03 21:01:34	5 days ago
	186.57 ms	43.39 ms	136.38 ms	3.72%	0.00%	71	2024-04-09 01:02:01	8 hours ago
	183.58 ms	58.73 ms	133.40 ms	3.66%	0.00%	4	2024-04-05 22:16:41	3 days ago
	180.01 ms	95.84 ms	129.83 ms	3.59%	0.01%	459	2024-04-08 21:57:19	11 hours ago
	157.67 ms	94.59 ms	107.49 ms	3.14%	0.00%	67	2024-04-09 03:15:10	6 hours ago
	139.01 ms	61.59 ms	88.82 ms	2.77%	0.00%	238	2024-04-08 22:25:44	10 hours ago
	138.50 ms	133.64 ms	88.32 ms	2.76%	0.00%	2	2024-04-03 20:31:04	6 days ago
	133.18 ms	122.24 ms	83.00 ms	2.65%	1.08%	329	2024-04-09 04:35:05	4 hours ago
	121.05 ms	18.49 ms	70.87 ms	2.41%	0.00%	81	2024-04-03 21:40:59	5 days ago
	111.62 ms	49.33 ms	61.44 ms	2.22%	0.00%	50	2024-04-05 19:25:16	4 days ago
	109.48 ms	76.69 ms	59.30 ms	2.18%	0.00%	32	2024-04-02 20:03:30	7 days ago



# Example: ISP Health (cont.)



# Events timeline - Preview (work in progress)



# THANK YOU!



Your Feedback Matters to Us



SCAN ME

The logo for the M365 monitoring essentials webinar, consisting of a 2x2 grid of white squares to the left of the text "M365 monitoring essentials" in a bold, uppercase sans-serif font, with "WEBINAR" in a smaller, uppercase sans-serif font below it.

# Why Teams Call analytics is critical to your entire business

May 7th, 2024 | 10:00 am EST | 16:00 CET



**Christoph Adler**

Head of Solution Consulting  
*panagenda*



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